Mitsuhara et al.

Application No.: 08/805,813

Page 2

c Sub D2

ġ

- 5. (Twice Amended) The plant according to claim 3, wherein the gene encoding the anti-bacterial peptide from the Diptera Insect is introduced into a plant in a form selected from the group consisting of:
  - (i) a recombinant gene[,]
- (ii) an expression casette [in which] comprising a recombinant gene [is] operably linked to a first plant promoter[,]; and
- (iii) an expression vector comprising an expression cassette comprising a recombinant gene operably linked to a first plant promoter, and a drug [resistant] resistance gene operably linked to a second plant promoter which is constitutively expressed.
- 6. (Twice Amended) The plant according to claim 5, wherein the gene which encodes the anti-bacterial peptide from the Diptera insect is [bound] operably linked to a plant gene via a hinge region of a tobacco chitinase gene.
- 7. (Twice Amended) The plant according to claim 5, wherein the anti-bacterial peptide is Sarcotoxin 1a [bound] operably linked to a signal sequence from a plant gene.

B3

- 8. (Twice Amended) The plant according to claim 5, wherein the <u>first</u> plant promoter is [the] <u>an</u> inducible promoter of the tobacco PR-1a gene.
- 9. (Twice Amended) The plant according to claim 5, wherein the expression cassette has a terminator [derived] from the tobacco PR-1a gene.
- 10. (Twice Amended) The plant according to claim [9] 5, wherein the expression vector further comprises a T-DNA region [and a drug resistant gene].
- 11. (Twice Amended) The plant according to claim [10] <u>5</u>, wherein the drug [resistant] <u>resistance</u> gene is operably linked to the Cauliflower mosaic virus 35S promoter.

By

Mitsuhara et al.

Page\_3

Application No.: 08/805,813

SUP D3

12. (Twice Amended) A plant with resistance to pathogenic bacteria, comprising a gene selected from the group consisting of:

(a) a recombinant gene comprising a gene encoding an anti-bacterial peptide [bounds] operably linked to a plant gene via a hinge region of tobacco chitinase gene

(b) an expression cassette comprising a recombinant gene operably linked to a <u>first</u> plant promoter, <u>wherein the recombinant gene comprises a gene encoding an anti-bacterial peptide operably linked to a plant gene via a hinge region of tobacco chitinase gene; and</u>

an expression vector comprising an expression cassette comprising a recombinant gene operably linked to a first plant promoter, wherein the recombinant gene comprises a gene encoding an anti-bacterial peptide operably linked to a plant gene via a hinge region of tobacco chitinase gene, and a drug resistance gene operably linked to a second plant promoter which is constitutively expressed.

- 13. (Twice Amended) The plant according to claim 12, wherein the pathogenic bacteria is [P. syringae pv. tabaci or E. carotovora subsp. carotovora subsp. carotovora subsp. carotovora.
- 14. (Twice Amended) The plant according to claim 12, wherein the antibacterial peptide is Sarcotomin 1a [derived] from a Diptera insect.

.

15. (Amended) A recombinant gene [in which] comprising a gene encoding an anti-bacterial peptide [is bound] operably linked to a plant gene via a hinge region of tobacco chitinase gene.

| 50k  | , DY-<br>(eart) |
|------|-----------------|
| 1004 | )               |

Mitsuhara et al. Application No.: 08/805,813 Page 4

- 16. (Twice Amended) The recombinant gene according to claim 15, wherein the gene encoding an anti-bacterial peptide is a gene encoding an anti-bacterial peptide [derived] from the Diptera insect.
- 17. (Twice Amended) [A] <u>The</u> recombinant gene according to claim [15] <u>16</u>, wherein the anti-bacterial peptide [derived] from the Diptera insect is Sarotoxin 1a.
- 18. An expression cassette comprising the recombinant gene of claim 15 operably linked to a plant promoter.
- 19. (Amended) An expression vector [for introducing] comprising the expression cassette of claim 18 [into a plant].
- 20. (Twice Amended) A plant which confers resistance to pathogenic fungi and bacteria, comprising a gene encoding a peptide which has anti-fungal and anti-bacterial activity, with the proviso that the peptide is not atacin, lysozyme, and cecropin.

## <u>REMARKS</u>

Claims 1-20 are pending in the present application. In the Office Action, the Examiner has rejected claims 1-3, 5-13, 15, 16, and 18-20 for allegedly lacking enablement. Claims 1-20 stand rejected for allegedly being indefinite. Claims 1, 12 and 20 remain rejected for allegedly being anticipated by the prior art. Finally, claims 1-2, 12-13, 15, and 18-20 remain rejected for allegedly being obvious over the prior art. Applicants note that claims directed to plants containing a sarcotoxin 1a gene (e.g., claims 4, 14 and 17) have been rejected only on formal grounds and are therefore in condition for allowance after appropriate amendments are made. Each of the outstanding rejections will be addressed below, in the order in which they were raised.